

Bear Safety for Backpackers

“Lions and tigers and bears, Oh my!



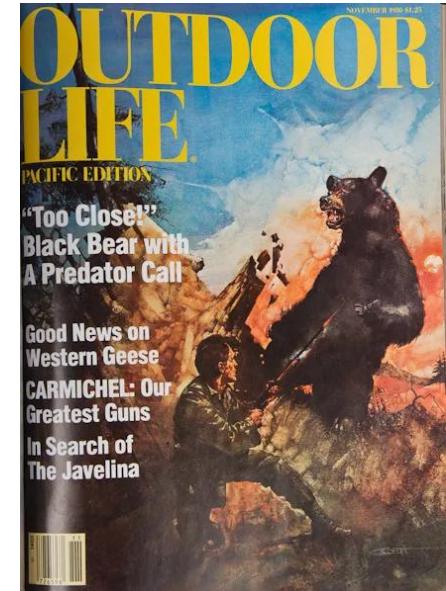
Are you worried/nervous about bears when you hike?

Hold up the index card of the associated color:



YES

NO



Black Bears and Backpacking

This discussion is mostly directed at people backpacking away from campgrounds and other places where food could readily be stored in a car or a building. Thus, the TATC maintenance trips based at Sherando would not be the conditions I'm discussing, but staying at an AT shelter would be.

Some of the topics are also relevant to day hiking where you might encounter a bear while eating lunch or stopping for a snack.

My discussion is related only to black bears, not grizzly bears. They are potentially much more aggressive and dangerous.

Assumptions for this talk

1. We all love and respect the environment including the animals, plants and everything in the forest we walk through
1. We are all intelligent people who will do the research to be well informed and make intelligent purchases of the necessary equipment to go backpacking
1. We will become properly trained to use the equipment well
1. We respect our own safety and the safety of those around us
1. We all substantially practice “Leave-No-Trace” when in wilderness places
1. We are rational and practical and will do the best to balance competing interests concerning bear safety and proper food storage

Facts about Black Bears *that matter to backpackers*

Before European colonization, it is estimated there were 2 million black bears North America. There are currently 750,000-900,000 black bears in North America. This number is rebounding from much lower numbers within the last 100-150 years.

Bears **sense of smell up to 7 times better than a bloodhound, and 2,300 times better than a human**. A black bear can smell a feeder full of birdseed up to 2 miles away

Black bears are **omnivores**. They'll eat anything including plants, berries, flowers, roots, nuts, insects, carrion, fish, baby deer, and small animals. Their diet is 85-90% plant matter. **They are most active at dawn and dusk.**

Black bears live over a home range of **15 square miles** or more. They will follow seasonal landscape changes to rely on different food sources throughout the year.

Facts about Black Bears *that matter to backpackers*

They will often **travel along humanmade trails**, retired logging roads, and game trails... *photos along AT in VA, TN and NC 2023... many more!*



Black Bear Movement

One yearling 158-pound male bear was treed and captured in Rockland county New York. The **bear was tagged and moved 49 miles** northwest into preferable bear range in the Catskills. **One year later** the bear was treed and recaptured in Westhaven, Connecticut, **115 miles due east**. Several months later the bear moved over **124 miles southwest** to Pennsylvania...

Black bears have an excellent homing ability and they may readily return to the location from which they were removed. For example, an adult female bear in the Adirondacks, captured and marked because of nuisance behavior, returned to the same location after being relocated over 41 miles from the original site.

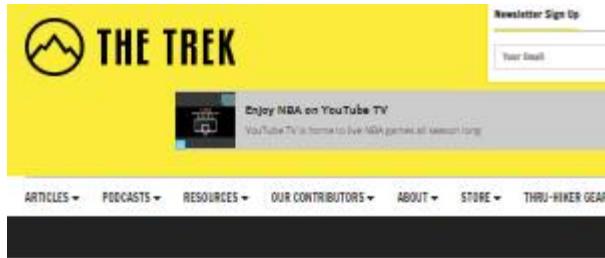
Historic and Current Bear Populations

Georgia	1953 = 50	3000 - 5,100
North Carolina		15,000 rising 6% per year
Tennessee	1962 harvest = 7 GSMNP < 50 exist in 1970	2018 harvest = 782, 5,000-6,000
Virginia	Early 1900's = 1000	18,000-20,000
Maryland		>2,000 , 60 killed by car
Pennsylvania	1970's = 4,000	15,000-16,000
New York		6,000-8,000, 14-61 killed by car
Vermont		7,000 - 8,500 (5 year high)
New Hampshire	1929 = ~1000 , 1943 = 837	>6000
Maine	1979 = 6,000-9,000	24,000-36,000

“I Survived a Bear Attack on the Appalachian Trail”

This article appeared on the website The Trek. It's dated May 31, 2023, written by Lily. She described it as, “*my bear attack experience at a tent site outside Glasgow, Virginia*”. Lily and her partner, Town.

They were told by a day hiker said, “Hey, just so you know, Matts Creek Shelter is closed because of bear activity.” So they tent camped just beyond the closure area.



I Survived a Bear Attack on the Appalachian Trail



The following post is my account of my bear attack experience at a tent site outside Glasgow, Virginia.

This article is rather long. I errred on the side of too much information rather than too little so people can learn from this experience as much as possible. If you are only interested in the story and not the background, skip to the section titled “The Attack.”

First, I’m including some information about the term bear attack vs. bear encounter and information about the North American black bear.

Bear Attack vs. Bear Encounter Disclaimer

Some people might take issue with my decision to call this situation a bear attack instead of a bear encounter. But to me, and I think a lot of people on trail, these terms mean drastically different things. A

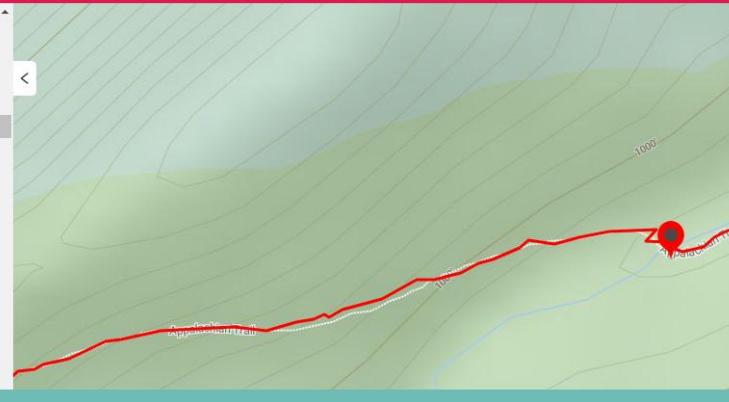
Overnight camping closed as of 6/4 due to aggressive **bear** activity.

ajrager 6/4/2023

Officials with the U.S. Forest Service have closed Matts Creek Shelter due to **bear** activity. Camping is not allowed at the shelter or in the surrounding area, including the Matts Creek side trail. Hikers should plan their itineraries accordingly to avoid camping in this area.

All area visitors should use caution, pack out all trash and food waste, and never leave food unattended.

Report **bear** encounters on the Appalachian Trail (A.T.):



Bear is NO JOKE. Just north of the shelter about 8pm, he charged us, came within 15 feet.

MSMamaBear 6/14/2023

Not for children who have to ask.

Wiskey 6/11/2023

Saw two **bears** 0.3mi south of the Shelter around 6:00pm. Not aggressive but I was on the move and they didn't flee either. Just an FYI they are still hanging around for those that don't plan to abide by closures

twobootsandabackpack 6/6/2023

Great flow.



Summary (TLDR version)

“had our ramen dinner outside the tent. Town hung the food bags about 50 yards from our tent in a PCT hang... We went to bed around 8:45 p.m.”

At 9:20 p.m., I woke up to heavy breathing on my right side from just outside the tent.

started to yell, “Hey Bear! Hey Bear!”... Town began blowing the whistle and banging on both sides of the tent.

heard a big huff and stomp directly outside our tent. The bear was bluff-charging the tent.

For the next 1.5 hours, we sat in the tent with Town banging, whistling, and yelling while I talked to 911 dispatchers, Blue Ridge Parkway Deputies, and wildlife experts.

dispatchers struggled to get our location

“I would advise you stay in the tent. We’re on our way to you” – Blue Ridge Parkway Deputy

“We really don’t feel safe in the tent. Is it dangerous if we try to make it to the highway 3 miles down the mountain?” – me

Eventually, I got a call from a wildlife expert.

Town stepped out of the tent and said, “I don’t see it, come out.” I followed seconds behind with my headlamp on. “Oh my god, it’s right there.” About 15 feet from where we were standing, the bear was on all fours sniffing the ground on the other side of the tent. I immediately started throwing my belongings... but the bear didn’t run.

We stepped onto the trail moments later and instantly heard a rustling in the woods coming from the other side of the trail than our tent site. A second bear stumbled onto the trail about 20 feet up trail from us.

“Proceed down the trail but remember not to turn and run. It will see you as prey.”

“It’s following us!” I told the dispatcher.

“Drop anything you have that could smell. It must think you have food.”

I directed Town to drop his pack. He did, and we continued down trail. The bear made it to the backpack and stopped to sniff it for a few seconds but quickly lost interest and continued to follow us.

Then my service went out and the call failed.

“We can throw rocks!” I yelled. Town and I reached down and started chucking the rocks at the bear.

After 3 miles, we made it to the highway. Instead of finding the deputies who had claimed they were en route to us an hour before, we were met with an empty highway and zero service. We’d have to hitch into the nearest town of Glasgow, VA. It was 11:15 p.m.

The next day, Ranger Wilson took a pump shotgun out of his truck. Oh, he’s not playing around.... Around mile 2.5, we came across food wrappers in the middle of the trail. “Are these yours?” Ranger Wilson asked.

“Oh yeah, those are mine,” said Town. “I threw them out of my pockets because I forgot I had them and was worried that’s what it was smelling.”

Then, we came up on Town’s backpack. While the bear showed minimal interest in the bag when he dropped it, it appeared that’s what he returned to after he stopped following us. The contents of his bag were strewn across the trail and the bag itself was torn in four separate places.

As we closed in on our tent, we noticed both of our sleeping pads were deflated and my toiletry bag was torn apart outside the tent. The sleeping bags had been slashed by claws, Towns more than mine, but otherwise, there was minimal damage inside the tent. The tent itself only had one area where the bear’s claw protruded.

While we were packing up our items, Ranger Wilson was snapping pictures of the affected items and found a paw print directly outside our tent. He snapped it and remarked on how large the bear was. “I wasn’t sure when you guys were initially telling me what happened, but this could’ve been really, really bad. That’s not a small bear.” I also remember him saying something along the lines of, “you were nearly a Netflix documentary.”

Based on the information we and the site provided, they believe it was a mother bear circling our tent and a 2 year old cub that followed us.

Ranger Wilson hopes they won’t need to relocate the bears. The berries should be popping soon and he hopes the bears will go back to doing bear things. This was the second time the bears had attacked people in one weekend, so they are certainly on high alert.





The paw of the 1st bear that came to camp measured 7 $\frac{1}{2}$ ".

The average length of an adult male's hand is 7.6 inches



“What we did right”

1. PCT food hang.
2. No food in tent.
3. Made loud noises.
4. Called emergency services.
5. Did not run.
6. Threw rocks at bear

“What we did wrong”

1. Hoped a 0.7-mile distance from a closed shelter was far enough
2. Cooked and ate dinner near our tent (*common*)
3. Scented toiletries near tent (*toothpaste & **IcyHot**¹*)
4. Snack bar wrapper in pocket (*probably common accident*)
5. No bear spray (*commonly not carried by most AT hikers*)
6. Low charge on devices

This is what a food conditioned bear is like... Repeated acts that endanger humans and bears



EXPLORE OUR WORK GET INVOLVED NEWS & EVENTS SHOP

04/28/2023

The ATC received a report of a food-conditioned bear at Matts Creek Shelter (NOBO mile 785.1). The bear showed little fear of humans and clawed a hole in a tent. The bear also stole a pack.



EXPLORE OUR WORK GET INVOLVED NEWS & EVENTS SHOP

(UPDATED 5/12/23) – Matts Creek Shelter

VA | CENTRAL-VIRGINIA

BEAR-ACTIVITY | FOOD-STORAGE | HIKING-SAFETY

[Alert](#)

05/12/2023

Update: Officials with the U.S. Forest Service have closed Matts Creek Shelter (NOBO mile 785.1) due to bear activity. Camping is not allowed at the shelter or in the surrounding area, including the Matts Creek side trail. Hikers should plan their itineraries accordingly to avoid camping in this area.

in laws face around 2am. Shelter itself is clean.
Privy in good shape.

bland00 9/4/2022

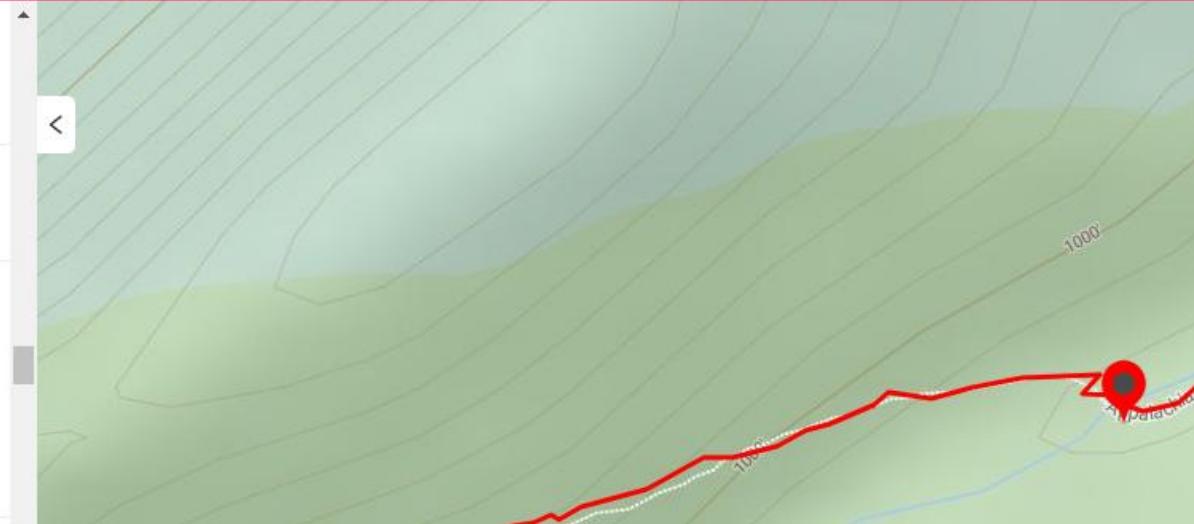
Good flow, multiple easy access points.

Ultra2023 8/29/2022

Large **bear** past through camp at 745pm is very exciting and he didn't mind my being here.

Update..the **bear** tried to get into the shelter with me, omg scariest moment of my adventure

Boomerang_Dan 8/11/2022





Please Report Any Bear Encounters

Your report will help reduce human/bear conflicts on the A.T. Reported bear incidents will be shared with our land management partners and listed on our [Trail Updates](#) page. Please submit a [report](#) if a bear:

- Entered a campsite or shelter area.
- Attempted to (or did) steal food.
- Was aggressive toward you, another hiker, or a pet.
- Damaged property.
- Was following you while you were hiking.
- Was acting strangely (e.g. was not scared by loud noises, was persistent in its pursuit of food and/or humans, followed you or another hiker while fixating intently, did not show fear of humans, seemed sick or diseased).

[SUBMIT A REPORT](#)

ATC Bear Encounter Report for 2022 and 2023

The ATC implemented the Bear Encounter Report form in 2018 and since then, we've received almost 200 reports. **North Carolina and Virginia** have the most reports, together making up just over 60% of reporting states.

The ATC received **35 bear encounter reports in 2022 and 32 in 2023**. Most reports in 2022 and 2023 came in April – early June and then again in October.

Summary of data from all years

In almost 85% of reports, the Bear Encounter Report was the only report made – no other agency partner, Club, or emergency service was contacted.

ATC Bear Encounter Report for 2022 and 2023

Reports range from normal behavior displayed by wild bears (such as running away at the sight of people) to serious human-bear conflicts that resulted in hiker injury and/or Trail camping closures. However, **most reports seem to describe food-conditioned bears** – bears that have or have started to associate campsites, shelters, and/or people with food rewards. Approximately **80% of reports indicate that the bear did not act aggressively toward the people** involved (charge, try to enter a tent/shelter, stalk a person, etc.), but describe **bears that showed little or no fear of humans and bears that persistently stayed around or repeatedly came back to a campsite**. Most reporting parties/people involved in the encounters yelled at or made noise to try and scare the bear away (75%).

ATC Bear Encounter Report for 2022 and 2023

Just over half of the reports were for designated campsites/shelter sites, while another ~20% of reports were for existing, user-created sites.

Of the encounters where food was involved or present at the time of the encounter, just under half (43%) reported that the bear successfully obtained hiker food and the most common source was a food hang.

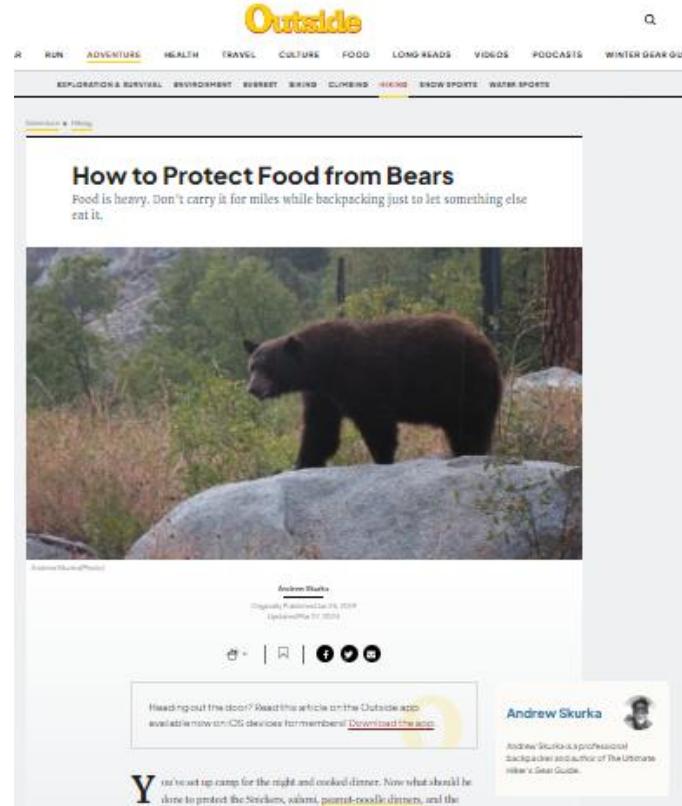
Conflicting Advice and Regulations

We're going to see that the topic of bear safety doesn't have single answers accepted by all involved, even among experts. It's not my point to just stir the pot and make a confusing issue more muddled, but this topic has no clear answers that fit every situation, every location, and satisfy all competing interests to backpackers.

Conflicting Advice and Regulations

Andrew Skurka is an expert backpacker (30,000+ miles of backpacking). He uses every method of food storage, including sleeping with his food, on a location by location basis.

I provided a link to this article on the TATC FB page. Go there to read the article. Join the group page. Join the club!



The screenshot shows a magazine article titled "How to Protect Food from Bears" by Andrew Skurka. The article is dated 04.04.2019 and updated on 07.05.2019. It includes a photo of a black bear standing on a rock. The text discusses the importance of not carrying food for miles while backpacking to prevent bears from getting it. The article is part of a larger section on "Hiking".

Conflicting Advice

This sign from Shenandoah National Park (photo from May 2022) says **“Keep your pack with you” even with a persistent or aggressive bear!** The two people in my opening story were told by a wildlife expert to drop the pack. This conflicts with NPS recommendations because it rewards the bear with a pack for its aggression.

Notice it also says **“Make noise! Yelling, clapping, and throwing rocks may scare bear away.”** We'll see different advice on this too.



ATC On the Trail: Avoiding Bear Encounters While Hiking

While you are hiking, here are the best ways to avoid a bear encounter:

1. Let bears know you're there by making noise. Whistle, talk, click your hiking poles together, etc., to give the bear a chance to move away before you get close enough to make it feel threatened.
2. Never leave your food or pack unattended. **If you're more than an arm's reach away, your food should be stored.** Even if you're just making a quick run to the privy, either bring your pack or **have someone else in your group stay with your pack and food. (REALLY?!)**
3. Use extra caution when stopping where there have been recent bear reports. Check our (ATC) Trail Updates page for the latest reports.
4. Keep your dog on a leash. Dogs may startle bears and should never be allowed to chase wildlife.

On the Trail: Avoiding Bear Encounters While Hiking (cont'd)

If you encounter a bear and it does not move away:

1. Back away.
2. Speak calmly and firmly. **(Remember NPS advice from SNP sign?)**
3. Avoid making eye contact. *(but don't turn your back on it?! Guess where most people will look?)*
4. Do not run or “play dead” even if a bear makes a “bluff charge.”
5. If you are bluff charged, stand your ground and continue speaking calmly and firmly to the bear. Back away slowly to give the bear space – do not run.

On the Trail: Avoiding Bear Encounters While Hiking (cont'd)

When you are in camp the best defense against a bear encounter is preparing and storing food properly and keeping a clean camp.

- 1. Store all food, food waste and trash, and scented items in a bear canister.**
 - a. If there is a food storage device (bear box, bear cables, or bear pole) provided, use it.**
 - b. If you choose not to carry a canister and there is no food storage device provided, be prepared to do a proper PCT-style bear hang.**
- 2. Keep your bear canister closed and locked at all times except when adding or removing items, even when it is near you.**
- 3. Cook and eat your meals 200 feet away from your tent or shelter. *(is this realistic?)***
- 4. Be careful not to get food or scented items on your gear or clothes. *(how***

Typical Meals @ AT Shelter on Picnic Table near shelter



On the Trail: Avoiding Bear Encounters While Hiking (cont'd)

1. **Do not leave food unattended** unless stored in a way that a bear cannot get to it. In other words, do not leave your food at your campsite or on a picnic table while you fetch water, visit the privy, etc.
2. **Do not burn food wrappers or leftovers.** This can attract bears and these things often do not fully burn, leaving a mess for other hikers or volunteers to clean up.
3. **Pack out all trash and food waste.** Do not leave trash or food waste in bear boxes or on cables or bear poles. Do not put trash or food waste in the privy. Doing so can attract bears and leaves a mess for other hikers and volunteers to clean up.
4. **Avoid becoming complacent.** Just because there have been no reports of bear activity in the area does not mean that bears are not present. All it takes is one food bag that is not hung properly to change a bear's habits.
5. **NEVER sleep with your food!!!** Not only is this dangerous, but it is also

Confusing messages concerning IGBC and “Canisters”



Appalachian Trail Food Storage: Which Method Works Best? | Appalachian Trail Conservancy



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The Interagency Grizzly Bear Committee (IGBC) supports recovery and delisting, and ongoing conservation of grizzly bear populations and their habitats in areas of the western United States through interagency coordination of policy, planning, management, research and communication.



Partner Agencies

[ABOUT](#)[BE BEAR AWARE](#)[PROGRAMS ▾](#)[COMMITTEES ▾](#)[NEWS/EVENTS](#)

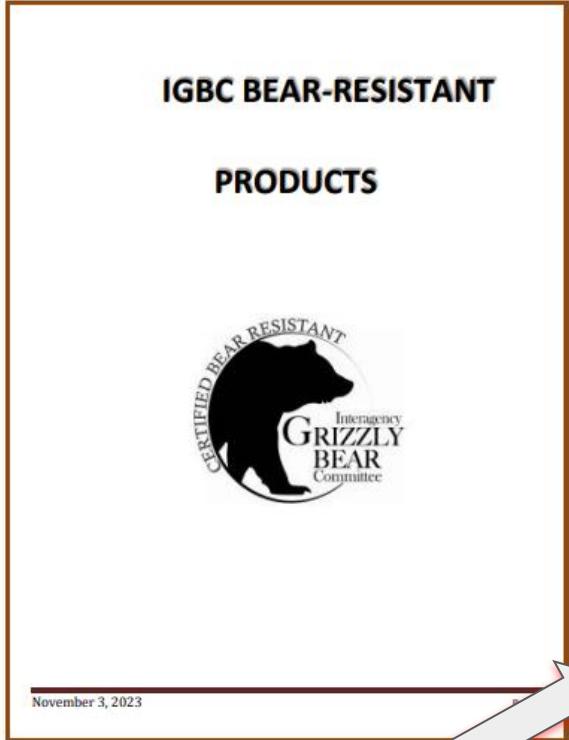
BEAR RESISTANT PRODUCTS

Interagency Grizzly Bear Committee → Programs → Bear Resistant Products

You can check to see if a product you are thinking of purchasing or that you already own is one of the nearly 500 products from more than 100 manufacturers that are on the IGBC List of Bear-Resistant Products.

[Bear Resistant Products List](#)

Confirmation that Ursack is IGBC Certified (dated 11/2023)



BearVault

BV425 - IGBC Certification No. 5422 (Approved 6/13/22)

BV475 - IGBC Certification No. 5423 (Approved 6/13/22)

866-301-3442 <http://www.bearvault.com>

Grub Can

GL500 Backpacking canister - IGBC Certification No. 5277 (Approved 7/16/19)

Wave 6.6 - IGBC Certification No. 5414 (Approved 10-11-21) NOT CURRENTLY IN PRODUCTION

Wave 10.0 - IGBC Certification No. 5415 (Approved 10-11-21) NOT CURRENTLY IN PRODUCTION

Carbon 6.6 - IGBC Certification No. 5427 (Approved 6-23-22)

Carbon 4.5 - IGBC Certification No. 2354884 (Approved 10-25-23)

928-853-8070 www.grubcan.com

Missoula Technical Development Center

Modifications to 50 Caliber Ammo Box: Military grade solid steel ammunition cans, with hinged lid and locking latch. Must be modified to include a bolt (with nut and washer) through the latch that prevents the latch from being opened and lid removed when bolt is in place (as shown in "[Interagency Grizzly Bear Committee. 1989. Bear-Resistant Containers – Minimum design and structural standards; Inspection and testing methodology.](#) Page 18."). These types of ammunition cans are available in various sizes. Acceptable dimensions include: length: 10" - 19; height: 7" - 15"; width: 3" - 10 ". **IGBC Certification No. 5419**

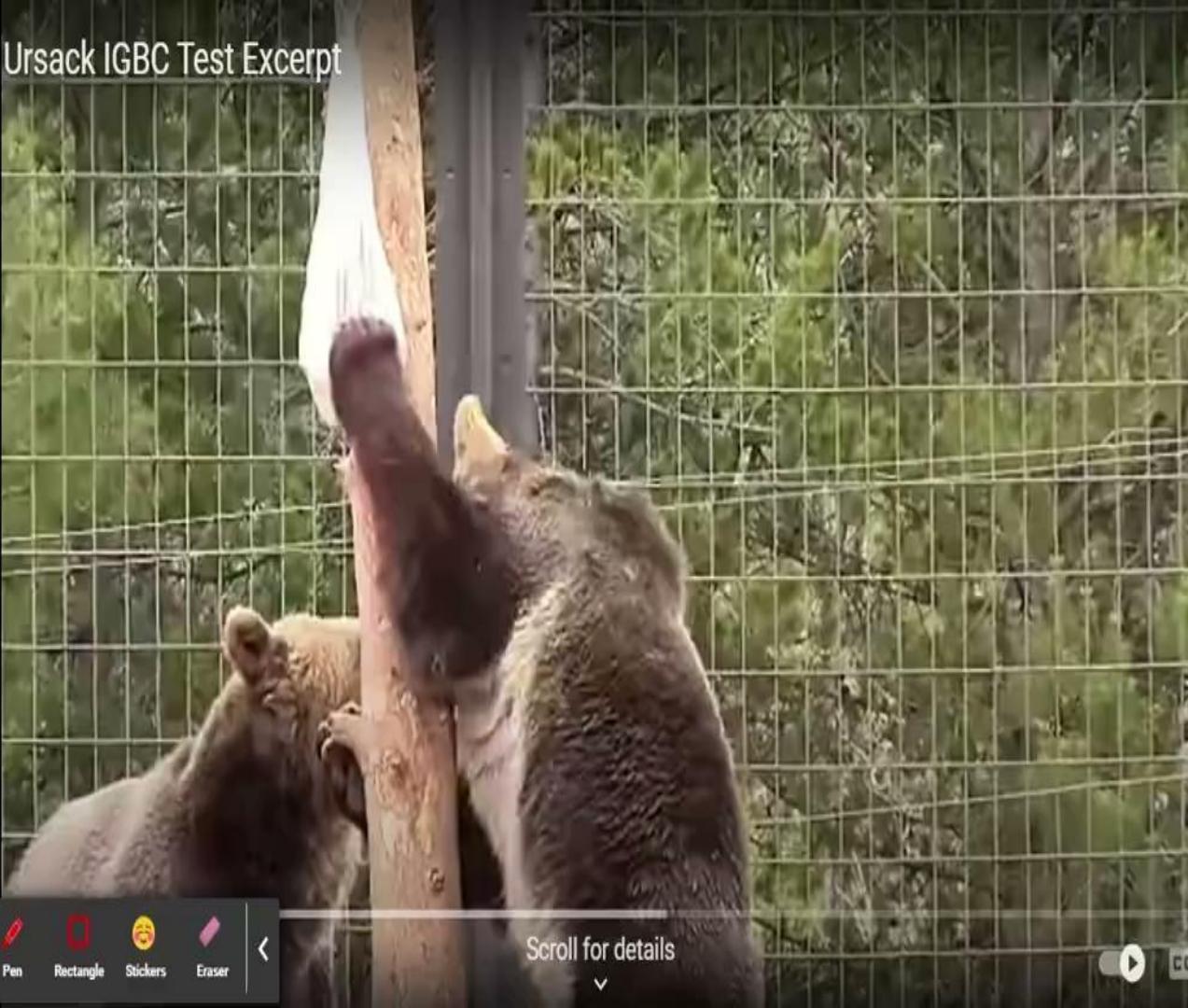
Ursack (Bear Saga, LLC)

Food Storage Bag – Model: Ursack Major (Previously the S29 AllWhite) – **IGBC Certification No. 3738**

Food Storage Bag – Model: AllMitey – **IGBC Certification No. 5135 (Approved 4-24-17)**

440-570-1503 www.ursack.com

Grizzly vs. Ursack IGBC Test Excerpt



Scroll for details



FOREST SERVICE SOUTHERN REGION

Order Number 08-00-00-23-02R

36 CFR 261.50 (a) and (b) {dated 4/14/2023}

“Stored properly” means:

- a. Stored or disposed of in a commercially made bear resistant canister, constructed of solid, non-pliable material, manufactured for the specific purpose of resisting entry by bears; or
- b. Stored using agency provided food storage, for example lockers, cable systems, poles; or
- c. Within a functioning electric fence; or
- d. Stored in a closed hard top motor vehicle or travel trailer constructed of solid, non-pliable material that, when secured, will have no openings, hinges, lids, or coverings that would allow animals to gain entry by breaking, bending, tearing, biting, or pulling with its claws (any windows in the vehicle must be closed); or
- e. Stored within a hard-sided residence, building (not including A.T. shelters or privies), or storage container subject to the terms and conditions of a special-use authorization or operating plan; or
- f. Using personal food hangs with the specification of a minimum of 6' from the tree trunk, 6' below the branch, 12' from ground to bottom of food bag.
- g. All backcountry food storage not using agency provided on-site food storage facilities should be at least 70 adult paces (200') from campsites and shelters.

Email question to USFS Southern District:

I emailed USFS and asked why they don't universally accept Ursacks considering that it is IGBC certified. Here is the Duty Officer's response (dated Feb 7,2024):

"There are pros and cons to each type of bear-resistant personal food storage container, as you are aware.

There are also myriad factors at play with multiple national forest leaders, other federal land agencies, and private landowners joining in the dialog about the risks of bear interactions along the Appalachian trail. The issue is more complex than "following IGBC standards."

I can reach out to Appalachian Trail liaisons at the Forest Service and Park Service and the team at the ATC if you want to learn more from the people who manage all the converging and diverging issues related to food storage and AT safety.

Let me know if you want additional contacts, to further your awareness."

Example Chattahoochee-Oconee Regulation

Appalachian Trail Seasonal Camping Regulation

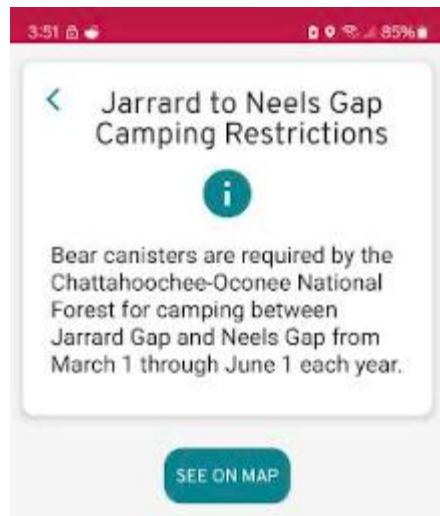
Pursuant to Title 36 Code of Federal Regulations (C.F.R) Section 261.50 (a) and (b), and for the protection of the public and natural resources, the following act or omission is prohibited in all areas along and within one quarter mile of each side of the Appalachian National Scenic Trail located between Jarrard Gap and Neels Gap to include the Woods Hole Shelter and Blood Mountain Shelter in the Chattahoochee National Forest of Georgia between March 1st and June 1st of each year. The provisions of this Order shall remain in effect from March 1st, 2012 to June 1st, 2016.

1. All persons camping overnight must possess and use a bear resistant canister for the storage of all food, food containers, garbage, and toiletries. (36 CFR 261.53 (e))

Bear Resistant Canister: All bear resistant canisters must be commercially made; constructed of solid, non-pliable material manufactured for the specific purpose of resisting entry by bears

Bear Canister Requirement as shown in Farout app

Still in effect in 2023





In this policy, the ATC promotes the use of food storage containers [approved by the Interagency Grizzly Bear Committee \(IGBC\)](#), which have been shown to have a high success rate in preventing all species of bears from easily accessing hiker food supplies. Overnight visitors on the A.T. are also encouraged to use any permanent food storage methods available at campsites and shelters, such as cable systems, metal poles with arms and bearproof metal boxes. By carrying a personal food storage container, A.T. visitors will be prepared should these more permanent systems be unavailable, full or damaged.

Ursack's Comment on Acceptance by NPS & USFS

I asked Ursack (by email 2/7/2024) why they aren't accepted in all National Parks, by USFS along AT and elsewhere. This was their reply:

“We have been fighting the good fight across all parks. Some have a grandfathered list since before we were relevant, some have leadership with slanted opinions, and many have been very accepting and we appreciate this. We always encourage users to reach out and state your opinion.”

Where Ursack is Approved



"Perfection is the enemy of progress"

Winston Churchill.

Food Storage Equipment Options

Dynema Bear Bag Kit
10.7 Liters 3.1 oz
\$65, or 14 Liters 3.4
oz \$60



Ursack Major 10.7 Liters
7.6 oz \$110, or Ursack
Major XL 8.8 oz \$125



BearVault BV450 7.2 Liters 2 lb
1.6 oz \$84, or BearVault BV500
11.5 Liters 2 lb 9 oz \$96



Food/Smellies storage methods

YOUR FAVORITE

Raise the corresponding index card for the form of food storage you use most frequently when backpacking:

- A. Hard sided bear canister (such as BearVault)
- B. Bear resistant food storage bag (such as Ursack)
- C. Traditional waterproof bear bag hung from tree limb
- D. Sleep with food in shelter or tent

Questions: WHEN BACKPACKING, do you...?

Please be honest, it will make the discussion more realistic. Nobody is here to judge you, mock you, or in any way think less of you. Use your Green card for YES and Red card for NO.

1. How many of you **OWN** a plastic hard sided bear canister such as the Bear Vault?
2. How many of you **OCCASIONALLY** suspend your food bag from the roof structure of the AT shelter?
3. How many of you **OCCASIONALLY** bring your food into your tent overnight?
4. How many of you may have your food hung properly, but **bring a snack to your tent or sleeping bag in the shelter?**
5. How many of you **routinely hang your food 200 yards** from the shelter or tenting area?

What are the pros and cons of storing food in shelter or tent?

PROS:

1. Easiest setup
2. Access for you all night
3. Safe from rain; no setup in rain
4. More secure in freezing temps (inside tent may be 5° warmer), snow and ice storm
5. Some people consider this method practical recognition of low risk of bear attack in some/most areas of AT
6. Your clothes hands and face probably have food and smellies odors also

CONS:

1. Most dangerous for bear encounter/attack
2. May cause rodents to eat thru tent to get to food and smellies

What are the pros and cons of standard PCT food hang from tree?

PROS:

1. Easy if you have the skill
2. Lighter weight than any method other than bringing your food in the tent or shelter
3. Waterproof if your bag is waterproof
4. Usually protective against rodents
5. Easy to pack bag

CONS:

1. Higher chance for bear to get your food according to ATC
2. Successful only if you have skill and lucky enough that there isn't persistent bear in the area
3. Trees with appropriate limbs are often hard to find in mature forests
4. Takes time away from other camp chores and at end of the day you're already tired
5. Not scent proof unless you add odor proof bag
6. Hard to do in wind, rain, snow and cold hands.

What are the pros and cons of using an Ursack?

PROS:

1. IGBC certified to resist black bear getting to food
2. Easier than hanging heavy bag from tree limb
3. Lighter weight than canister
4. Easy to pack bag
5. Usually protective against rodents
6. Doesn't take as long as PCT method to setup
7. Only requires tree trunk, not specific tree limb

CONS:

1. According to some people, higher chance for bear to get your food than canister
2. Bag not fully waterproof (needs inner bag)
3. Not scent proof unless you add odor proof bag
4. Still have to deal with rain, snow and cold hands.

What are the pros and cons of using a hard sided bear canister?

PROS:

1. Perhaps the most safe from bears getting access to your food¹
2. Also makes a good camp chair. If you're not at a shelter where there's a picnic table
3. It is one of the fastest systems when you're setting up or breaking down camp
4. It is rainproof and you don't have to stand long time in rain to deploy
5. It is also rodent proof
6. Good tree limbs sometimes hard to find or nonexistent

What are the pros and cons of using a hard sided bear canister?

CONS:

1. Heaviest food storage option for backpacking
2. Rigid/won't conform to contents even as you deplete food
3. You may lose storage space due to rigid form
4. Not easy to put inside pack
5. Not ergonomic to strap to top or bottom of pack
6. More expensive
7. Current acceptance rate is low which indicates some degree of user choice against canisters

Ergonomics of Canister Carry

Four or five days worth of food will weigh 8-10 lb or more, not counting the storage device. That makes it the heaviest object in your pack.

If you strap it to the top of your pack it makes you top heavy, upsetting your center of gravity. This will be noticed in exaggerated side to side oscillation while you walk. This will fatigue your muscles and results in wasted energy. Your high center of gravity will also make you unstable and could result in unnecessary falls. You'll probably lean forward just slightly to accommodate this awkward load.

If you place the food canister at the bottom of your pack it makes you have a low posterior altered center of gravity. This additional 10+ pounds beyond your butt will alter your stride and posture. You will likely hinge your upper body forward which is bad for your lower back and knees.

Ergonomics of Canister Carry (cont'd)

“Some backpackers have found that strapping a canister filled with food to the top of their backpack causes the pack to be top-heavy and uncomfortable. Instead, they’ve kept their food farther down in their pack – in a Loksak or trash bag – and just strapped the empty canister to the top of their pack, transferring the food into the canister at the end of the day.” *Bear canisters, Ursacks, or bear bags on the Appalachian Trail? By FEB 13, 2023 : ROLF ASPHAUG; TheTrek.co*



PRESS RELEASE

ATC Recommends A.T. Visitors Carry Bear-Resistant Food Storage Containers

JULY 14, 2022

Appalachian Trail Conservancy Policy Advocates for Increased Use of Personal Bear-Resistant Storage Containers

HARPERS FERRY, W.Va. (July 14, 2022) – Today the Appalachian Trail Conservancy (ATC) announced the adoption of a new policy recommending all overnight Appalachian Trail (A.T.) visitors carry a bear-resistant food storage container as a vital part of their backpacking gear. This policy comes after a multi-

ATC Food Storage Policy 2022 FINAL

Food Hang (a.k.a. rope hang)

Advantages: No manager-provided facilities are needed. • Lightweight.

Disadvantages: Campers must have knowledge, skills, and equipment to effectively use these. • Requires both time to do them correctly and the availability of appropriately sized and shaped trees (may be unavailable). • This method can lead to rope damage to trees and ground cover trampling. • In documented cases, bears have defeated even a “perfect” food hang.

Notes: Habituated bears in several locations have learned how to access campers’ hung food (chewing through lines, pulling from above, sows sending cubs up tree or on shoulders). Use currently prohibited on several western trails and a few areas of the A.T. ATC 2021 Policy advocates for eliminating the food hang on the entire A.T.

ATC Food Storage Policy 2022 FINAL

Bear Resistant Containers (**IGBC approved or similar**)

Advantages: • Easy, quick, convenient. • Can be used and accessed in any location, including between shelters. • Effective for all animals. • Can double as seat, etc. • No cost to managers if visitors provide their own.

Disadvantages: • Can be expensive to purchase (although less expensive options exist) • Bulky/heavier to carry. • May be difficult to fit all food and consumables into them, depending on number of days of food

Notes: Highly effective method if used properly. Requires extensive education and outreach effort by managers. Camper compliance varies. Compliance increases if required. Rental programs have been successful.

I asked Google Gemini (AI):

What is the best way to store food for backpacking in black bear territory?

There are several good options for storing food while backpacking in black bear territory, but the "best" method depends on a few factors:

Regulations: Different National Parks, Forests, and other wilderness areas may have specific regulations on bear-resistant food storage methods.expand_more Always check the specific regulations where you'll be hiking before choosing a method.

Available resources: Depending on where you're going, resources like designated bear canisters, lockers, or specific hanging points might be provided or required.expand_more

Your experience and comfort level: Different methods require different skills and equipment.

AI answer: What is the best way to store food for backpacking in black bear territory? (cont'd)

Here are the main options:

- 1. Bear canister:** This is the most effective and often required method in many areas. Bear canisters are hard-sided, certified containers that meet rigorous standards for resisting bear attacks. They're secure, easy to use, and require no special skills or equipment. However, they can be heavy and bulky.
- 2. Bear hang:** This traditional method involves suspending your food in a sealed bag high in a tree, away from bears. It requires proper technique and strong cordage, and success depends on finding suitable trees. Some areas may not allow traditional bear hangs due to savvy bears.
- 3. Designated food lockers or poles:** In some areas, designated bear-resistant lockers or poles are provided. These are easy to use and highly effective, but availability is limited.
- 4. Ursack:** This is a puncture-resistant bag specifically designed for bear hangs. It offers some added protection compared to a regular stuff sack, but is not as secure as a canister.

AI answer: What is the best way to store food for backpacking in black bear territory? (cont'd)

Additional tips:

1. Regardless of the method, store all food, trash, toiletries, and anything with an odor securely. Even seemingly innocuous items can attract bears.
2. Keep food storage at least 100 feet away from your campsite and water sources.[expand_more](#)
3. Cook meals and wash dishes at least 200 feet away from your campsite.
4. Never sleep with food in your tent.
5. Familiarize yourself with bear safety practices and know how to react if you encounter a bear.

Remember, no method is foolproof, and responsible practices are essential for minimizing bear conflicts and protecting yourself and the bears. Choose the method that best suits the regulations, resources, and your own comfort level for a safe and enjoyable backpacking trip.

Ask A Bear: Do I Need to Bear-Bag Unopened Freeze-Dried Foods?

My naturally curious nature means I might investigate a freeze-dried package anyway, and the situation gets worse if I'm a habituated bear with any experience or contact with humans. I might've learned that humans carry around various packages that contain tasty goodness, and I may attempt to investigate them regardless of smell. Better not to give me any chance of finding a reward—it's bad for you, and potentially catastrophic for me.

"You don't know whether you're the first person or the 20th person to encounter that bear," says Kim Annis, Grizzly Bear Management Specialist with Montana Fish, Wildlife, & Parks. In the same sense, there's no way to know whether a bear has been food conditioned to humans.

Relative Risks

The 750,000-900,000 **black bears of North America kill less than one person per year on the average**

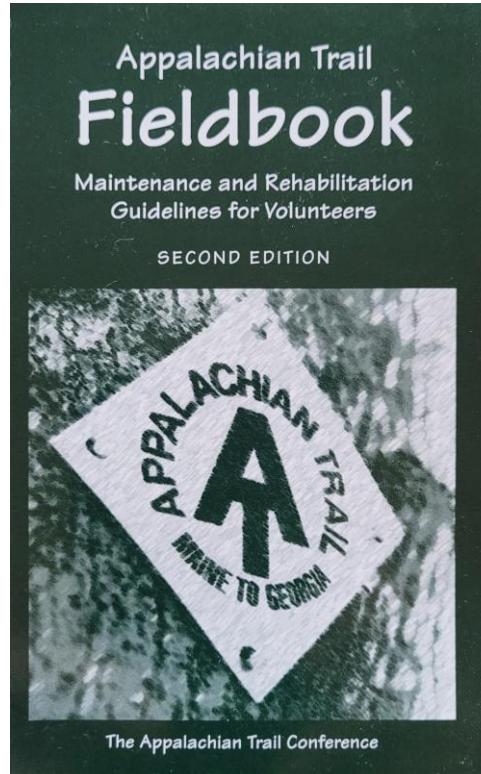
Over 20,000 people a year are murdered and over 42,000 killed on the roads

Hornets, bees and wasps: The CDC reports that flying insects caused the deaths of a total of 1,109 people between the years 2000 and 2017 for an average of **62 deaths each year.**

Each year in the United States, **deer–vehicle collisions resulted in at least 59,000 human injuries and 440 human fatalities**

SMALL BEARS TOO!

Rodents can be very destructive too. There are likely to be mice (and sometimes chipmunks and rats) at almost every shelter on the AT. I observed them at almost every shelter that I stopped at in the southern half of AT. I've had mice run across my face while I was sleeping. They've eaten into other hikers' packs, tents, clothes and sleeping bags.



- Remove all litter (perform on each work trip).
- Clean the water source (perform on each work trip).
- Where needed, provide appropriate food-storage devices (such as a cable system) to prevent bear problems.
- Make sure the site does not exceed the user impact limit jointly established by the club and managing agency.
- Make sure the site is well-drained.
- Make sure the site is erosion free.
- Make sure the site contains signs as listed on club sign inventory.
- Ensure that the site has no visible human waste.
- Identify hazard trees to be cleared once per year.
- Ensure that privies are structurally sound, with no rot. With pit privies, plenty of capacity should be left in the pit. Privies should be simple and rustic in appearance.
- Ensure that shelters are free of leaks, structurally sound, clean, ~~free of bear and rodent problems~~, simple and rustic in appearance, and equipped with a register in which hiker comments can be recorded.



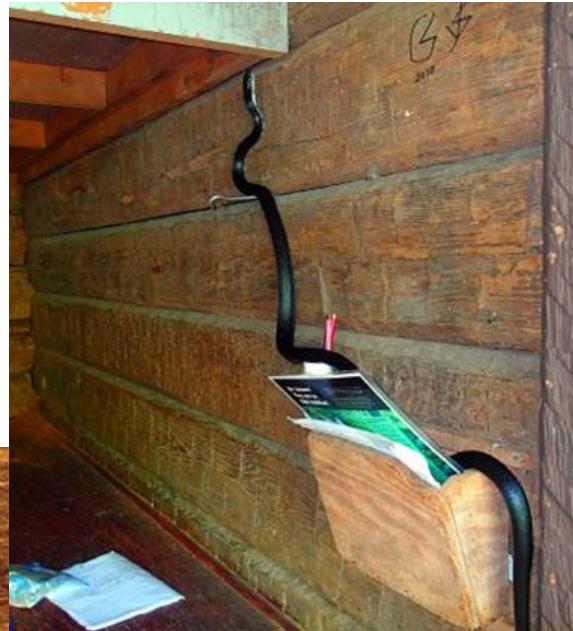
Stone shelter

Mice in AT Shelters

Proper storage and cleaning of food/wastes is required for prevention of rodent problems also. Food scraps on tables, ground, and shelter floor from meals are sufficient to feed rodents. We'll likely never be that secure with our food/wastes. What can we do?

Mice carry disease and are formally considered a nuisance by many state agencies. Between Atkins and Damascus VA from Sept 5-11, 2023, we found mice at every shelter. We observed hiker(s) carrying mouse trap(s). Mice emerged immediately after hiker midnight (dark and gone to sleep), sometimes sooner. Maximum trap rate was at Thomas Knob Shelter (near Mt. Rogers). Six mice in one night.

Mice in AT Shelters



Mice in AT Shelters

“One night, after a long day of hiking in the rain, I hung my rain shell up on a nail in the shelter to dry out. The next morning I realized there was a hole big enough for my finger to poke through in the left chest pocket. I had forgotten about an empty granola bar wrapper in there. A mouse had somehow smelled the crumbs, climbed up the wall, and gnawed through my pocket. Lesson learned; hang EVERYTHING edible on the mouse lines.”

<https://www.greenbelly.co/pages/appalachian-trail-shelters>

by Chris Cage, Updated on April 10th, 2021

